



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/516,490
Source: PCT
Date Processed by STIC: 12-10-04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04



PCT

RAW SEQUENCE LISTING

DATE: 12/10/2004

PATENT APPLICATION: US/10/516,490

TIME: 14:12:36

Input Set : A:\X15642.NatlPhase.ST25.txt

Output Set: N:\CRF4\12102004\J516490.raw

3 <110> APPLICANT: Richard Dennis DiMarchi
 4 David Lee Smiley
 5 Lianshan Zhang
 7 <120> TITLE OF INVENTION: MODIFIED GLUCAGON-LIKE PEPTIDE-1 ANALOGS
 9 <130> FILE REFERENCE: X-15642 National Phase
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/516,490
 C--> 11 <141> CURRENT FILING DATE: 2004-12-01
 11 <160> NUMBER OF SEQ ID NOS: 24
 13 <170> SOFTWARE: PatentIn version 3.2
 15 <210> SEQ ID NO: 1
 16 <211> LENGTH: 31
 17 <212> TYPE: PRT
 18 <213> ORGANISM: Artificial
 20 <220> FEATURE:
 21 <223> OTHER INFORMATION: Synthetic constructs
 24 <220> FEATURE:
 25 <221> NAME/KEY: MISC_FEATURE
 26 <222> LOCATION: (1)..(1)
 27 <223> OTHER INFORMATION: Xaa= L-histidine, D-histidine, desamino-histidine,
 28 2-amino-histidine, beta-hydroxy-
 29 histidine, homohistidine, alpha-fluoromethyl-histidine, or alpha
 30 methyl-histidine
 32 <220> FEATURE:
 33 <221> NAME/KEY: MISC_FEATURE
 34 <222> LOCATION: (2)..(2)
 35 <223> OTHER INFORMATION: Xaa= Ala, Gly, Val, Leu, Ile, Ser, or Thr
 37 <220> FEATURE:
 38 <221> NAME/KEY: MISC_FEATURE
 39 <222> LOCATION: (6)..(6)
 40 <223> OTHER INFORMATION: Xaa= Phe, Trp, or Tyr
 42 <220> FEATURE:
 43 <221> NAME/KEY: MISC_FEATURE
 44 <222> LOCATION: (10)..(10)
 45 <223> OTHER INFORMATION: Xaa= Val, Trp, Ile, Leu, Phe, or Tyr
 47 <220> FEATURE:
 48 <221> NAME/KEY: MISC_FEATURE
 49 <222> LOCATION: (12)..(12)
 50 <223> OTHER INFORMATION: Xaa= Ser, Trp, Tyr, Phe, Lys, Ile, Leu, Val
 52 <220> FEATURE:
 53 <221> NAME/KEY: MISC_FEATURE
 54 <222> LOCATION: (13)..(13)
 55 <223> OTHER INFORMATION: Xaa= Tyr, Trp, or Phe
 57 <220> FEATURE:

Does Not Comply
 Corrected Diskette Needed

RAW SEQUENCE LISTING

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DATE: 12/10/2004

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Output Set: N:\CRF4\12102004\J516490.raw

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58 <221> NAME/KEY: MISC_FEATURE
59 <222> LOCATION: (14)..(14)
60 <223> OTHER INFORMATION: Xaa= Leu, Phe, Tyr, or Trp
62 <220> FEATURE:
63 <221> NAME/KEY: MISC_FEATURE
64 <222> LOCATION: (16)..(16)
65 <223> OTHER INFORMATION: Xaa= Gly, Glu, Asp, Lys
67 <220> FEATURE:
68 <221> NAME/KEY: MISC_FEATURE
69 <222> LOCATION: (19)..(19)
70 <223> OTHER INFORMATION: Xaa= Ala, Val, Ile, or Leu
72 <220> FEATURE:
73 <221> NAME/KEY: MISC_FEATURE
74 <222> LOCATION: (21)..(21)
75 <223> OTHER INFORMATION: Xaa= Glu, Ile, or Ala
77 <220> FEATURE:
78 <221> NAME/KEY: MISC_FEATURE
79 <222> LOCATION: (24)..(24)
80 <223> OTHER INFORMATION: Xaa= Ala, or Glu
82 <220> FEATURE:
83 <221> NAME/KEY: MISC_FEATURE
84 <222> LOCATION: (27)..(27)
85 <223> OTHER INFORMATION: Xaa= Val, or Ile
87 <220> FEATURE:
88 <221> NAME/KEY: MISC_FEATURE
89 <222> LOCATION: (31)..(31)
90 <223> OTHER INFORMATION: Xaa= L-Cys, D-Cys, homocysteine, or penicillamine
92 <400> SEQUENCE: 1
W--> 94 Xaa Xaa Glu Gly Thr Xaa Thr Ser Asp Xaa Ser Xaa Xaa Xaa Glu Xaa
95 1 5 10 15
98 Gln Ala Xaa Lys Xaa Phe Ile Xaa Trp Leu Xaa Lys Gly Arg Xaa
99 20 25 30
102 <210> SEQ ID NO: 2
103 <211> LENGTH: 31
104 <212> TYPE: PRT
105 <213> ORGANISM: Artificial
107 <220> FEATURE:
108 <223> OTHER INFORMATION: Synthetic construct
111 <220> FEATURE:
112 <221> NAME/KEY: MISC_FEATURE
113 <222> LOCATION: (1)..(1)
114 <223> OTHER INFORMATION: Xaa= L-histidine, D-histidine, desamino-histidine,
115 2-amino-histidien, beta-hydroxy-
116 histidine, homohistidine, alpha-fluoromethyl-histidine, or
117 alpha-methyl-histidine
119 <220> FEATURE:
120 <221> NAME/KEY: MISC_FEATURE
121 <222> LOCATION: (2)..(2)
122 <223> OTHER INFORMATION: Xaa= Gly, Ala, Val, Leu, Ile, Ser or Thr

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/516,490

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Input Set : A:\X15642.NatlPhase.ST25.txt

Output Set: N:\CRF4\12102004\J516490.raw

124 <220> FEATURE:
 125 <221> NAME/KEY: MISC_FEATURE
 126 <222> LOCATION: (10)..(10)
 127 <223> OTHER INFORMATION: Xaa = Val, Phe, Tyr, or Trp
 129 <220> FEATURE:
 130 <221> NAME/KEY: MISC_FEATURE
 131 <222> LOCATION: (12)..(12)
 132 <223> OTHER INFORMATION: Xaa = Ser, Tyr, Trp, Phe, Lys, Ile, Leu, or Val
 134 <220> FEATURE:
 135 <221> NAME/KEY: MISC_FEATURE
 136 <222> LOCATION: (16)..(16)
 137 <223> OTHER INFORMATION: Xaa = Gly, Clu, Asp, or Lys
 139 <220> FEATURE:
 140 <221> NAME/KEY: MISC_FEATURE
 141 <222> LOCATION: (19)..(19)
 142 <223> OTHER INFORMATION: Xaa = Ala, Val, Ile, or Leu
 144 <220> FEATURE:
 145 <221> NAME/KEY: MISC_FEATURE
 146 <222> LOCATION: (27)..(27)
 147 <223> OTHER INFORMATION: Xaa = Val or Ile
 149 <220> FEATURE:
 150 <221> NAME/KEY: MISC_FEATURE
 151 <222> LOCATION: (31)..(31)
 152 <223> OTHER INFORMATION: Xaa = L-Cys, D-Cys, homocysteine, or penicillamine
 154 <400> SEQUENCE: 2
 W--> 156 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Xaa Tyr Leu Glu Xaa
 157 1 5 10 15
 160 Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Xaa Lys Gly Arg Xaa
 161 20 25 30
 164 <210> SEQ ID NO: 3
 165 <211> LENGTH: 42
 166 <212> TYPE: PRT
 167 <213> ORGANISM: Artificial
 169 <220> FEATURE:
 170 <223> OTHER INFORMATION: Synthetic construct
 173 <220> FEATURE:
 174 <221> NAME/KEY: MISC_FEATURE
 175 <222> LOCATION: (1)..(1)
 176 <223> OTHER INFORMATION: Xaa = L-histidine, D-histidine, desamino-histidine,
 177 2-amino-histidine, beta-hydroxy-
 178 histidine, homohistidine, alpha-fluoromethyl-histidine, or
 179 alpha-methyl-histidine
 181 <220> FEATURE:
 182 <221> NAME/KEY: MISC_FEATURE
 183 <222> LOCATION: (2)..(2)
 184 <223> OTHER INFORMATION: Xaa = Ala, Gly, Val, Leu, Ile, Ser, or Thr
 186 <220> FEATURE:
 187 <221> NAME/KEY: MISC_FEATURE
 188 <222> LOCATION: (6)..(6)

Invalid amino
Acid
designator

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

RAW SEQUENCE LISTING

DATE: 12/10/2004

PATENT APPLICATION: US/10/516,490

TIME: 14:12:36

Input Set : A:\X15642.NatlPhase.ST25.txt

Output Set: N:\CRF4\12102004\J516490.raw

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189 <223> OTHER INFORMATION: Xaa = Phe, Trp, or Tyr
191 <220> FEATURE:
192 <221> NAME/KEY: MISC_FEATURE
193 <222> LOCATION: (10)..(10)
194 <223> OTHER INFORMATION: Xaa = Val, Trp, Ile, Leu, Phe, or Tyr.
196 <220> FEATURE:
197 <221> NAME/KEY: MISC_FEATURE
198 <222> LOCATION: (12)..(12)
199 <223> OTHER INFORMATION: Xaa = Ser, Trp, Tyr, Phe, Lys, Ile, Leu, Val
201 <220> FEATURE:
202 <221> NAME/KEY: MISC_FEATURE
203 <222> LOCATION: (13)..(13)
204 <223> OTHER INFORMATION: Xaa = Tyr, Trp, or Phe
206 <220> FEATURE:
207 <221> NAME/KEY: MISC_FEATURE
208 <222> LOCATION: (14)..(14)
209 <223> OTHER INFORMATION: Xaa = Leu, Phe, Tyr, or Trp
211 <220> FEATURE:
212 <221> NAME/KEY: MISC_FEATURE
213 <222> LOCATION: (16)..(16)
214 <223> OTHER INFORMATION: Xaa = Gly, Glu, Asp, or Lys
216 <220> FEATURE:
217 <221> NAME/KEY: MISC_FEATURE
218 <222> LOCATION: (19)..(19)
219 <223> OTHER INFORMATION: Xaa = Ala, Val, Ile, or Leu
221 <220> FEATURE:
222 <221> NAME/KEY: MISC_FEATURE
223 <222> LOCATION: (21)..(21)
224 <223> OTHER INFORMATION: Xaa = Glu, Ile, or Ala
226 <220> FEATURE:
227 <221> NAME/KEY: MISC_FEATURE
228 <222> LOCATION: (24)..(24)
229 <223> OTHER INFORMATION: Xaa = Ala or Glu
231 <220> FEATURE:
232 <221> NAME/KEY: MISC_FEATURE
233 <222> LOCATION: (27)..(27)
234 <223> OTHER INFORMATION: Xaa = Val or Ile
236 <220> FEATURE:
237 <221> NAME/KEY: MISC_FEATURE
238 <222> LOCATION: (28)..(28)
239 <223> OTHER INFORMATION: Xaa = Lys, Asp, Arg, or Glu
241 <220> FEATURE:
242 <221> NAME/KEY: MISC_FEATURE
243 <222> LOCATION: (30)..(30)
244 <223> OTHER INFORMATION: Xaa = Gly, Pro, or Arg
246 <220> FEATURE:
247 <221> NAME/KEY: MISC_FEATURE
248 <222> LOCATION: (31)..(31)
249 <223> OTHER INFORMATION: Xaa = Gly, Pro, Ser, L-Cys, D-Cys, homocysteine, or
penicillamine

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RAW SEQUENCE LISTING

DATE: 12/10/2004

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TIME: 14:12:36

Input Set : A:\X15642.NatlPhase.ST25.txt

Output Set: N:\CRF4\12102004\J516490.raw

251 <220> FEATURE:
 252 <221> NAME/KEY: MISC_FEATURE
 253 <222> LOCATION: (32)..(32)
 254 <223> OTHER INFORMATION: Xaa = Ser, Pro, His, L-Cys, D-Cys, homocysteine,
 penicillamine,
 255 NH2
 257 <220> FEATURE:
 258 <221> NAME/KEY: MISC_FEATURE
 259 <222> LOCATION: (33)..(33)
 260 <223> OTHER INFORMATION: Xaa = Ser, Arg, Thr, Trp, Lys, L-Cys, D-Cys, homocysteine,
 261 penicillamine, NH2 or
 262 is absent
 264 <220> FEATURE:
 265 <221> NAME/KEY: MISC_FEATURE
 266 <222> LOCATION: (34)..(34)
 267 <223> OTHER INFORMATION: Xaa = Ser, Gly, L-Cys, D-Cys, homocysteine, penicillamine,
 NH2,
 268 or is absent
 270 <220> FEATURE:
 271 <221> NAME/KEY: MISC_FEATURE
 272 <222> LOCATION: (35)..(35)
 273 <223> OTHER INFORMATION: Xaa = Ala, Asp, Arg, Glu, Lys, Gly, L-Cys, D-Cys,
 homocysteine,
 274 penicillamine,
 275 NH2, or is absent
 277 <220> FEATURE:
 278 <221> NAME/KEY: MISC_FEATURE
 279 <222> LOCATION: (36)..(36)
 280 <223> OTHER INFORMATION: Xaa = Pro, Ala, L-Cys, D-Cys, homocysteine, penicillamine,
 NH2,
 281 or is absent
 283 <220> FEATURE:
 284 <221> NAME/KEY: MISC_FEATURE
 285 <222> LOCATION: (37)..(37)
 286 <223> OTHER INFORMATION: Xaa = Pro, Ala, L-Cys, D-Cys, homocysteine, penicillamine,
 NH2 or
 287 is absent
 289 <220> FEATURE:
 290 <221> NAME/KEY: MISC_FEATURE
 291 <222> LOCATION: (38)..(38)
 292 <223> OTHER INFORMATION: Xaa = Pro, Ala, Arg, Lys, His, L-Cys, D-Dys, homocysteine,
 293 penicillamine, NH2 or
 294 is absent
 296 <220> FEATURE:
 297 <221> NAME/KEY: MISC_FEATURE
 298 <222> LOCATION: (39)..(39)
 299 <223> OTHER INFORMATION: Xaa = Ser, His, Pro, Lys, Arg, L-Cys, D-Cys, homocysteine,
 300 penicillamine, NH2 or
 301 is absent
 303 <220> FEATURE:
 304 <221> NAME/KEY: MISC_FEATURE
 305 <222> LOCATION: (40)..(40)
 306 <223> OTHER INFORMATION: Xaa = His, Ser, Arg, Lys, L-Cys, D-Cys, homocysteine,

307

penicillamine, NH₂ or

RAW SEQUENCE LISTING ERROR SUMMARY
 PATENT APPLICATION: US/10/516,490

DATE: 12/10/2004
 TIME: 14:12:37

Input Set : A:\X15642.Nat1Phase.ST25.txt
 Output Set: N:\CRF4\12102004\J516490.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,31
 Seq#:2; Xaa Pos. 1,2,10,12,16,18,27,31
 Seq#:3; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36
 Seq#:3; Xaa Pos. 37,38,39,40,41,42
 Seq#:4; Xaa Pos. 1,2,10,16,19,27,28,30,31,32,33,34,35,36,37,38,39,40,41,42
 Seq#:5; Xaa Pos. 1,2,16,19,27,32,33,34,35,36,37,38,39,40,41,42
 Seq#:6; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36
 Seq#:6; Xaa Pos. 37,38,39,40,41,42,43,44,45
 Seq#:7; Xaa Pos. 32,33,34,35,36,37,38,39,40,41,42,43,44,45
 Seq#:8; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27
 Seq#:9; Xaa Pos. 1,2,10,12,16,19,27
 Seq#:10; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36
 Seq#:10; Xaa Pos. 37,38,39,40,41,42
 Seq#:11; Xaa Pos. 1,2,10,16,19,27,28,30,31,32,33,34,35,36,37,38,39,40,41,42
 Seq#:12; Xaa Pos. 1,2,16,19,27,32,33,34,35,36,37,38,39,40,41,42
 Seq#:13; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36
 Seq#:13; Xaa Pos. 37,38,39,40,41,42,43,44,45
 Seq#:14; Xaa Pos. 32,33,34,35,36,37,38,39,40,41,42,43,44,45
 Seq#:15; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,31

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/516,490

DATE: 12/10/2004

TIME: 14:12:37

Input Set : A:\X15642.NatlPhase.ST25.txt

Output Set: N:\CRF4\12102004\J516490.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
M:341 Repeated in SeqNo=1
L:156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
M:341 Repeated in SeqNo=2
L:324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
M:341 Repeated in SeqNo=3
L:466 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
M:341 Repeated in SeqNo=4
L:583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
M:341 Repeated in SeqNo=5
L:762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
M:341 Repeated in SeqNo=6
L:869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:16
M:341 Repeated in SeqNo=7
L:951 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
M:341 Repeated in SeqNo=8
L:1008 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
M:341 Repeated in SeqNo=9
L:1160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
M:341 Repeated in SeqNo=10
L:1286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
M:341 Repeated in SeqNo=11
L:1391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
M:341 Repeated in SeqNo=12
L:1561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
M:341 Repeated in SeqNo=13
L:1658 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:16
M:341 Repeated in SeqNo=14
L:1745 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
M:341 Repeated in SeqNo=15